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said substrates are sequentially one by one loaded and unloaded in order between the cassettes and said plural vacuum processing chambers, and said substrates are treated in said plural vacuum processing chambers with surfaces thereof which are treated being horizontal, and
 said vacuum processing chambers carry out a processing selected from the group consisting of dry etching, chemical vapor deposition and sputtering

10 A vacuum processing apparatus, comprising
 a first loader provided with a conveying structure for conveying substrates,
 a second loader provided with a convey chamber, another conveying structure and plural vacuum processing chambers, and
 lock chambers for connecting said first loader and said second loader,
 wherein
 said first loader includes a cassette mount unit located outside of said lock chambers,
 said cassette mount unit has a cassette positioning plane in which all cassettes, containing substrates to be processed, are positioned in a single row in front of said lock chambers,
 said first loader is disposed in front of the lock chambers between said cassette mount unit and said lock chambers,
 said lock chambers are respectively provided with both an inlet and an outlet located in a horizontal line, the substrates are transferred from said first loader to said second loader and from said second loader to said first loader,
 said substrates are loaded and unloaded between the cassettes and said plural vacuum chambers, and
 said substrates are treated in said plural vacuum processing chambers with surfaces thereof which are treated, being horizontal

11 A vacuum processing apparatus, comprising
 a first loader provided with a first conveying structure for conveying substrates,
 a second loader provided with a convey chamber, a second conveying structure and plural vacuum processing chambers, and
 lock chambers for connecting said first loader and said second loader, wherein
 each of said plural vacuum processing chambers has a substrate table, to maintain a surface of a substrate which is treated horizontal during a vacuum processing therein, so that said surface is horizontal during treatment in the plural vacuum processing chambers,
 said first loader includes cassette tables disposed adjacent to and in parallel with each other located outside of said lock chambers,
 the substrates are transferred, one by one, from said first loader to said second loader and from said second loader to said first loader,
 each of said cassette tables has a cassette positioning plane disposed substantially horizontally,
 said second conveying structure is located in said convey chamber to transfer each substrate between one of said lock chambers and one of said plural vacuum processing chambers, such that said substrates are placed on and removed from said substrate table with said surface horizontal,
 the two conveying structures sequentially load and unload from the cassettes into said plural vacuum processing chambers, and
 said plural vacuum processing chambers carry out a processing selected from the group consisting of dry etching, chemical vapor deposition and sputtering.

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12. A vacuum processing apparatus, comprising
 a first loader provided with a first conveying structure for conveying substrates,
 a second loader provided with a convey chamber, a second conveying structure and plural vacuum processing chambers, and
 lock chambers for connecting said first loader and said second loader,
 each of said plural vacuum processing chambers having a substrate table to maintain a surface of a substrate, which is treated in the vacuum processing chambers, horizontal during a vacuum processing, so that the plural vacuum processing chambers treat said substrates with the surface thereof which is treated, being horizontal,
 said first loader including cassette tables disposed adjacent to and in parallel with each other located outside of said lock chambers, and
 each of said cassette tables having a cassette positioning plane disposed substantially horizontally, wherein
 said two conveying structures transfer the substrates from said first loader to said second loader and from said second loader to said first loader,
 said conveying structure located in said convey chamber acts to transfer each substrate between one of said lock chambers and one of said plural vacuum processing chambers, such that said substrates are placed on and removed from said substrate table with a surface thereof which is treated, being horizontal,
 said two conveying structures load and unload between the cassettes and said plural vacuum processing chambers, and
 said vacuum processing chambers carry out a processing selected from the group consisting of dry etching, chemical vapor deposition and sputtering.

13. A vacuum processing apparatus, comprising
 a first loader provided with a first conveying structure for conveying substrates,
 a second loader provided with a convey chamber, a second conveying structure and plural vacuum processing chambers; and
 lock chambers for connecting said first loader and said second loader, wherein
 each of said plural vacuum processing chambers has a substrate table to maintain a surface of a substrate, which is treated in the vacuum processing chambers, horizontal during a vacuum processing, so that the plural vacuum processing chambers treat said substrates with the surface thereof which is treated, being horizontal,
 said first loader includes cassette tables disposed adjacent to and in parallel with each other located outside of said lock chambers,
 each of said cassette tables has a cassette positioning plane disposed substantially horizontally,
 said second conveying structure is located in said convey chamber to transfer each substrate between one of said lock chambers and one of said plural vacuum processing chambers, such that said substrate is placed on and removed from said substrate table with a surface thereof which is treated, being horizontal, and
 said substrate is loaded and unloaded from a cassette, of said cassettes, into said plural vacuum processing chambers by said two conveying structures

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